

Amendments to the Drawings:

The attached replacement drawing sheet makes changes to Fig. 1 and replaces the original sheets with Figs. 1 and 2.

Attachment: Replacement Sheet

REMARKS

By this Amendment, the specification and claims 1, 12 and 18-20 are amended, and claim 21 is added. Claims 18-20 are only amended to correct informalities, and thus are not narrowed by such amendments. Drawing Figs. 1 and 2 are replaced by the attached replacement drawing sheets. No new matter is added. Accordingly, claims 1-21 are pending in this application. Reconsideration of the application is respectfully requested.

Applicant appreciates the courtesies shown to Applicant's representative by Examiner Gordon in the August 25, 2005 personal interview. Applicant's separate record of the substance of the interview is incorporated into the following remarks.

I. Drawing Objections

The Office Action objects to the drawings because they do not include reference numeral 250 that is mentioned in the description. Therefore, the Office Action asserts that corrected drawings are required. During the personal interview, Examiner Gordon also suggested that the drawings should be corrected to show every feature of the invention specified in the claims.

The drawing Figs. 1 and 2 are replaced by the attached replacement drawing sheet that corrects Fig. 2 to show every feature recited in the claims. The specification is also amended in light of the drawing corrections. No new matter is added. Accordingly, reconsideration and withdrawal of the drawing objection are respectfully requested.

II. Rejections Under 35 U.S.C. §§102(b) and 103(a)

The Office Action rejects claims 1, 5-8, 10-13, 19 and 20 under 35 U.S.C. §102(b) over U.S. Patent No. 6,273,552 to Hawkins et al. ("Hawkins"); and rejects claims 2-4 and 14-16 under 35 U.S.C. §103(a) over U.S. Patent Application Publication No. 2003/0027342 to Sheridan et al. ("Sheridan"). Applicant respectfully traverse the rejections.

Hawkins does not disclose, teach or suggest an ejector including "a plurality of movable ejection structures associated with the ejector nozzle and arranged to individually move in the chamber such that a variable volume of fluid is ejected from the associated ejector nozzle," as recited in independent claim 1. Hawkins also does not disclose, teach or suggest a method for ejecting including "individually controlling the moving of the first and second movable ejection structures such that a variable volume of fluid is ejected from the associated ejector nozzle," as recited in independent claim 12.

The Office Action asserts that Hawkins discloses an image forming system and method including controlling a controller 110 that sequentially operates multiple pistons so that the pistons may eject ink. Notwithstanding these assertions, Hawkins does not teach or suggest individually controlling or moving a plurality of ejection structures.

As discussed in the personal interview, Hawkins teaches, in Figs. 1 and 2, an image forming system and method including a controller 110 that controls ink ejection in a printhead 150. See col. 4, lines 58-62. The printhead 150 includes an array of ink channel pistons 250 positioned in a chamber 210 and above nozzles 190. See Fig. 2 and col. 5, lines 18-21. The pistons 250 are attached to and actuated by vertical movement of a motive source 251 via a plate 252 and membrane 253 located on a body of the printhead 150. See Fig. 2 and col. 5, lines 31-38.

Hawkins also teaches that movement of the pistons 250 spans all chambers 210 to simultaneously pressurize and depressurize all chambers 210 to confine the effects of pressure pulses produced by motion of the motive source 251. See col. 6, lines 3-7. Therefore, the motive source 251 and the plate 252 serve as a common actuator that actuates all of the pistons 250 together. Because Hawkins does not teach or suggest a controller individually

controlling the motive source 251 and the plate 252, Hawkins does not teach or suggest the ejector and method for ejecting respectively set forth in claims 1 and 12.

As discussed during the personal interview with respect to claim 5, the Office Action merely alleges that Hawkins teaches a controller that actuates each of a plurality of movable ejection structures independently. However, the Office Action does not provide support for such allegation. Because Hawkins teaches a controller 110 simultaneously moving the pistons 250, Hawkins does not teach or suggest independently controlling movable ejection structures as alleged by the Office Action. See col. 6, lines 3-7.

The Office Action asserts that Sheridan remedies the deficiencies of Hawkins. Specifically, the Office Action asserts that Sheridan teaches a method and apparatus for facilitating creation and study of biological substrates by ejecting biological materials. Notwithstanding these assertions, Sheridan does not teach or suggest individually controlling or moving a plurality of ejection structures. Therefore, Hawkins and Sheridan does not teach or suggest, alone or in permissible combination, the ejector and method for ejecting of claims 1 and 12, respectively.

Claims 1 and 12 are patentable over and would not have been rendered obvious by Hawkins and Sheridan, alone or in permissible combination. Claims 2-11 and 13-20 variously depend from claims 1 and 12, and thus also were patentable over and would not have been rendered obvious by Hawkins and Sheridan, alone or in permissible combination, for at least the reasons set forth above, as well as for the additional features they recite. Accordingly, reconsideration and withdrawal of the rejections are respectfully requested.

III. Miethe

During the personal interview, Examiner Gordon indicated that further search and consideration are required. Examiner Gordon also indicated that the claims may be

unpatentable or obvious in view of unapplied U.S. patent No. 6,488,894 to Miethe et al. ("Miethe").

Miethe teaches, in Figs. 1-5, a device and method of sequential discharge of flowable reagents 38, 40, 42 caused by downward movement of a plunger 46 that acting on four piston-like partition elements 30, 32, 34, 36 in a tubular receptacle 12. See col. 4, lines 35-63. However, Miethe does not teach or suggest that the plunger 46 force individually moves the piston-like partition elements 30, 32, 34, 36.

Applicant respectfully submits that the applied references, alone or in permissible combination with Miethe, would not have suggested the ejector and method for ejecting of claims 1 and 12, respectively.

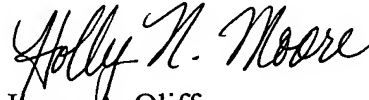
IV. Conclusion

New claim 21 depends from claim 12, and thus is also believed to be patentable for at least the reasons set forth above with respect to claim 12.

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-21 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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Attachments:

Amendment Transmittal
Replacement Sheet (Figs. 1 and 2)

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